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Direct methanol fuel cell (DMFC); Methanol crossover; Simulation; Flowing electrolyte; Proton exchange membrane (PEM) (Kjeang, E. (153) 89)

Optimization

Flat-tube; High power density (HPD); Solid oxide fuel cell (SOFC); Simulation; Performance (Lu, Y. (153) 68)

12 V overcharge

12 V overcharge; Thermal runaway; $\rm LiCoO_2; \rm LiNi_{0.8}Co_{0.1}Mn_{0.1}O_2$ (Kim, J. (153) 345)

Oxygen reduction

Electrocatalysis; Ru-based cluster catalysts; Cathode; PEMFC (González-Huerta, R.G. (153) 11)

Oxygen reduction

Perovskite-type cobalt oxide; Surface area; Surface composition (Hammouche, A. (153) 239)

Passive direct methanol fuel cell

Passive direct methanol fuel cell; Air breathing; Nafion membrane; Cell performance; Methanol crossover; Fuel utilization (Liu, J.G. (153) 61)

PCM

PCM; MEA; PTFE; Fuel cell; Membrane (Reichman, S. (153) 228)

PEDOT

Supercapacitor; Carbon nanotubes; Polyaniline; Polypyrrole (Frackowiak, E. (153) 413)

PEM fuel cell

Fuel cell; Hydrogen; Economical fuel cell model; Evolutionary programming (El-Sharkh, M.Y. (153) 136)

PEMFC

Electrocatalysis; Oxygen reduction; Ru-based cluster catalysts; Cathode (González-Huerta, R.G. (153) 11)

PEMFC

PEMFC; AFC; Membrane; Non-fluorinated Ionomers; Proton-conducting polymer; Composites (Iojoiu, C. (153) 198)

Performance

Flat-tube; High power density (HPD); Solid oxide fuel cell (SOFC); Simulation; Optimization (Lu, Y. (153) 68)

Perovskite-type cobalt oxide

Perovskite-type cobalt oxide; Oxygen reduction; Surface area; Surface composition (Hammouche, A. (153) 239)

Phase transition

Graphite; Lithium; Entropy; Stage (Yazami, R. (153) 312)

Platinum

SEI; Li-ion cells; Impedance spectroscopy; Graphite; Nickel (Schranzhofer, H. (153) 391)

Polyaniline

Supercapacitor; Carbon nanotubes; Polypyrrole; PEDOT (Frackowiak, E. (153) 413)

Poly(etheretherketone) membrane

Small angle X-ray scattering; Nafion membrane; Proton conductivity; Direct methanol fuel cells (Yang, B. (153) 29)

Polymer

Ab initio; Electrolyte; Lithium salts; Gel; Modeling (Johansson, P. (153) 336)

Polymer bonded manganese dioxide cathodes

Rechargeable alkaline cells; Gelled zinc electrodes; Flat plate design; Barium additives; Cycle life (Stani, A. (153) 405)

Polymer electrolyte fuel cell

Solid oxide fuel cell; Seal-less stack; Combined system; Steam reforming (Yokoo, M. (153) 18)

Polymer electrolyte fuel cells

Computational fuel cell dynamics; Large-scale simulation; Cooling (Wang, Y. (153) 130)

Polymer electrolyte membrane

Fuel cell; Automotive system; Power train; Supercapacitor (Thounthong, P. (153) 145)

Polymer-electrolyte-membrane

Methanol diffusion; Electroosmosis; Electroosmotic drag coefficient (Schaffer, T. (153) 210)

Polypyrrole

Supercapacitor; Carbon nanotubes; Polyaniline; PEDOT (Frackowiak, E. (153) 413)

Porous composites

Porous composites; Cathode material; LiMPO₄; Sol–gel synthesis; Citric acid; Li-ion batteries (Dominko, R. (153) 274)

Post mortem SEM

Lithium-ion cell; Graphite electrode; SEI film; Additive; In situ DEMS (Buqa, H. (153) 385)

Power

Fuel; Cell; Uninterruptible; Computer; Supply (Gonzales, J. (153) 151)

Fuel cell; Polymer electrolyte membrane; Automotive system; Supercapacitor (Thounthong, P. (153) 145)

Pre-condition

Lithium battery; Layered electrode; Composite electrode (Kim, J.-S. (153) 258)

Proton conductivity

Small angle X-ray scattering; Nafion membrane; Poly(etheretherketone) membrane; Direct methanol fuel cells (Yang, B. (153) 29)

Proton exchange membrane fuel cell

Proton exchange membrane fuel cell; Flow fields; Current distribution (Birgersson, E. (153) 76)

Proton exchange membrane (PEM)

Direct methanol fuel cell (DMFC); Methanol crossover; Numerical modeling; Simulation; Flowing electrolyte (Kjeang, E. (153) 89)

Proton-conducting polymer

PEMFC; AFC; Membrane; Non-fluorinated Ionomers; Composites (Iojoiu, C. (153) 198)

Pseudocapacitance

Asymmetric supercapacitor; Manganese oxide; Activated carbon; Aqueous electrolyte; Hydrogen storage (Khomenko, V. (153) 183)

PTFF

PCM; MEA; Fuel cell; Membrane (Reichman, S. (153) 228)

PUREBLACK® Carbons

Graphitized carbon black; Conductive nano-carbon; Batteries; Fuel cells; Supercapacitors (Barsukov, I.V. (153) 288)

PVDF

PVDF; Alkaline treatment; ESR; Free radicals; FT-IR; FT-Raman (Zhang, S. (153) 234)

PVdF-HFP

Micro-porous polymer electrolyte; Ionic conductivity; Linear sweep voltammetry; Charge–discharge studies (Subramania, A. (153) 177)

Pyrolusite

Manganese dioxide; Lithiation; Ramsdellite; Li NMR; CBED (Bowden, W. (153) 265)

Quantification of carbon dioxide poisoning

Alkaline fuel cells; Carbon dioxide poisoning; Accelerated carbon dioxide poisoning tests; AFC (Tewari, A. (153) 1)

Ramsdellite

Manganese dioxide; Lithiation; Pyrolusite; Li NMR; CBED (Bowden, W. (153) 265)

Rate capability

Graphite fluoride; Fluorinated carbon; Lithium batteries (Lam, P. (153) 354)

Rate capability

Lithium-ion battery; Cathode; Nanoparticle (Zhang, S. (153) 350)

Reaction with water vapor

Lithium phases in water; High potential oxides; Water stability window; Lithium extraction from water (Huggins, R.A. (153) 365)

Rechargeability

Cyclic voltammetry (CV); γ-MnO₂; Lithium insertion; Ionic size; Aqueous battery (Minakshi, M. (153) 165)

Rechargeable alkaline cells

Rechargeable alkaline cells; Gelled zinc electrodes; Polymer bonded manganese dioxide cathodes; Flat plate design; Barium additives; Cycle life (Stani, A. (153) 405)

Reforming

Hydrogen; Fuel cells; Autothermal; Diesel; Sulfur (Cheekatamarla, P.K. (153) 157)

Resistivity

Spinels; Microstructure; Interconnect; Solid oxide fuel cell (Qu, W. (153) 114)

Ru-based cluster catalysts

Electrocatalysis; Oxygen reduction; Cathode; PEMFC (González-Huerta, R.G. (153) 11)

Ruthenium-carbon support

Manganese dioxide (OMS-2); Methanol oxidation; Direct methanol fuel cell; Electrocatalytic activity (Rebello, J.S. (153) 36)

Seal-less stack

Solid oxide fuel cell; Polymer electrolyte fuel cell; Combined system; Steam reforming (Yokoo, M. (153) 18)

SEI

SEI; Li-ion cells; Impedance spectroscopy; Graphite; Nickel; Platinum (Schranzhofer, H. (153) 391)

SEI film

Lithium-ion cell; Graphite electrode; Additive; In situ DEMS; Post mortem SEM (Buqa, H. (153) 385)

Self-discharge

Self-discharge; Capacity loss; Kinetics; Lithium manganese spinel; Activation energy (Yazami, R. (153) 251)

Serpentine flow field design

DMFC; SS 316; Bipolar/end plate (Padhy, B.R. (153) 125)

Silicon/graphite composites

Silicon/graphite composites; Lithium-ion batteries; Alloying electrode; Electrode deformation (Yoshio, M. (153) 375)

Simulation

Direct methanol fuel cell (DMFC); Methanol crossover; Numerical modeling; Flowing electrolyte; Proton exchange membrane (PEM) (Kjeang, E. (153) 89)

Simulation

Flat-tube; High power density (HPD); Solid oxide fuel cell (SOFC); Performance; Optimization (Lu, Y. (153) 68)

Single-chamber SOFC

Single-chamber SOFC; Anode-supported cell; Ni–YSZ cermet; Anode ageing (Jacques-Bédard, X. (153) 108)

Small angle X-ray scattering

Small angle X-ray scattering; Nafion membrane; Poly(etheretherketone) membrane; Proton conductivity; Direct methanol fuel cells (Yang, B. (153) 29)

Sol-gel synthesis

Porous composites; Cathode material; LiMPO₄; Citric acid; Li-ion batteries (Dominko, R. (153) 274)

Solid electrolyte interphase (SEI)

Solid electrolyte interphase (SEI); Li-ion battery; XPS (Edström, K. (153) 380)

Solid oxide fuel cell

Solid oxide fuel cell; Polymer electrolyte fuel cell; Seal-less stack; Combined system; Steam reforming (Yokoo, M. (153) 18)

Solid oxide fuel cell

Spinels; Resistivity; Microstructure; Interconnect (Qu, W. (153) 114) Solid oxide fuel cell (SOFC)

Flat-tube; High power density (HPD); Simulation; Performance; Optimization (Lu, Y. (153) 68)

Solid-state reaction

 ${\rm LiNi_{0.5}Mn_{1.5}O_4}$; Lithium ion batteries; High voltage (Fang, H.-s. (153) 174) Spacer material

DMFC; Liquid electrolyte; Sulphuric acid; Methanol crossover (Schaffer, T. (153) 217)

Spinels

Spinels; Resistivity; Microstructure; Interconnect; Solid oxide fuel cell (Qu, W. (153) 114)

SS 316

DMFC; Bipolar/end plate; Serpentine flow field design (Padhy, B.R. (153) 125)

Stage

Graphite; Lithium; Entropy; Phase transition (Yazami, R. (153) 312) State space model

Direct methanol fuel cell; Mathematical modelling (Schlake, J.Ch. (153) 100)

Steam reforming

Solid oxide fuel cell; Polymer electrolyte fuel cell; Seal-less stack; Combined system (Yokoo, M. (153) 18)

Sulfur

Hydrogen; Fuel cells; Autothermal; Reforming; Diesel (Cheekatamarla, P.K. (153) 157)

Sulfur

Molten caustic leaching method; Needle coke; Lithium-ion secondary battery; Heat treament; Capacity (Kang, H.-G. (153) 170)

Sulphuric acid

DMFC; Liquid electrolyte; Spacer material; Methanol crossover (Schaffer, T. (153) 217)

Supercapacitor

Fuel cell; Polymer electrolyte membrane; Automotive system; Power train (Thounthong, P. (153) 145)

Supercapacitor

Nomex; Activated carbon fibers; Electrochemical double layer capacitor; EDLC (Leitner, K. (153) 419)

Supercapacitor

Supercapacitor; Carbon nanotubes; Polyaniline; Polypyrrole; PEDOT (Frackowiak, E. (153) 413)

Supercapacitors

Graphitized carbon black; Conductive nano-carbon; Batteries; Fuel cells; PUREBLACK® Carbons (Barsukov, I.V. (153) 288)

Supply

Fuel; Cell; Uninterruptible; Computer; Power (Gonzales, J. (153) 151)

Surface area

Perovskite-type cobalt oxide; Oxygen reduction; Surface composition (Hammouche, A. (153) 239)

Surface composition

Perovskite-type cobalt oxide; Oxygen reduction; Surface area (Hammouche, A. (153) 239)

Tetraglyme

Gel polymer electrolyte; Lithium/sulfur batteries; Discharge process (Ryu, H.-S. (153) 360)

Thermal runaway

12 V overcharge; LiCoO₂; LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ (Kim, J. (153) 345)

Thermal stability

Graphite anode; Thermogravimetry–mass spectrometry (Watanabe, I. (153) 402)

Thermogravimetry-mass spectrometry

Graphite anode; Thermal stability (Watanabe, I. (153) 402)

Thin-film cathode

Thin-film cathode; Microbattery (Golodnitsky, D. (153) 281)

Uninterruptible

Fuel; Cell; Computer; Power; Supply (Gonzales, J. (153) 151)

Voltage

Lithium ion cells; LiNiO₂; Nano-size; Calculation; Coulomb potential (Yamaki, J. (153) 245)

Water stability window

Lithium phases in water; Reaction with water vapor; High potential oxides; Lithium extraction from water (Huggins, R.A. (153) 365)

XPS

Solid electrolyte interphase (SEI); Li-ion battery (Edström, K. (153) 380)